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KNOWLEDGE AND ATTITUDE ON HIV/AIDS AMONG STUDENTS OF HIGHER SECONDARY SCHOOLS IN IMPHAL: A CROSS SECTIONAL STUDY

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ABSTRACT: Acquiring knowledge and skills will encourage young people to avoid or reduce behaviors that carry a risk of contracting HIV infection. Studies on level of awareness on HIV/AIDS among youths have been done in other parts of the country, but are scarce for the North-Eastern part of the country which is socio-topographically quite different from the mainland of the country. Hence, it was felt necessary to assess the level of knowledge on HIV/AIDS among youths. A cross-sectional study to assess the level of knowledge on HIV/AIDS among Class XI and XII students and also to study their attitudes towards HIV/AIDS was done in Imphal, Manipur. Data were collected by using a questionnaire format from 1852 students selected randomly from all the existing 16 higher secondary schools on the basis of PPS. 96% of the students had heard about HIV/AIDS, the main sources of information being books, teachers, TV, radio and newspaper. 66% could differentiate between HIV and AIDS. The number of respondents who were aware of the routes of HIV transmission was (i) Infected blood transfusion (1776, 95%) (ii) Body fluids/secretions (1772, 95%) (iii) Sharing needles/syringes (1578, 85%) (iv) Breast feeding/ Mother to child (1494, 80%) (v) Tattooing (1140, 61%) (vi) Sharing razors (794, 43%) and (vii) Deep kissing (524, 28%). The number of respondents who had misconceptions on transmission routes was (i) Mosquito-bites (418, 22%) (ii) Coughing/sneezing (136, 7%) (iii) Sharing drinking glass (26, 1%) and (iv) Touching/shaking hands (26, 1%). The proportion of respondents who could identify means of preventing HIV/AIDS transmission viz. Screening blood before transfusion, Abstinence before marriage, Knowing one's HIV status, Use of condoms, Use of sterilized syringes, Screening pregnant women were 79%, 78%, 78%, 78%, 71% and 56% respectively. 63-80% of the students had positive attitudes towards HIV/AIDS. The mean score based on knowledge and attitudes was found to be significantly higher among girl students than boys and also among government-owned school students than the private-owned schools students. The current findings were much better than reported by other studies done in other parts of India. Concerned State stakeholders in coordination with the educational sector should continue to give relentless effort so that each and every youth has full and clear knowledge on HIV/AIDS and has no stigma and discrimination on PLHA.

KEYWORDS: Knowledge, Attitude, HIV/AIDS, Higher secondary school students.

INTRODUCTION: According to the latest National AIDS Control Organization (NACO) 2013 Report, the prevalence of HIV/AIDS in India is 0.27%.¹ Young people in the sexually active age-group constitute a major chunk of the affected population. 88.55% are found in the age group of 15-49, out of which 31.8% are in the age-group of 15-29 years.¹ Of all the States/UTs of the country, Manipur has the highest estimated HIV prevalence of 1.22%.²

Acquiring knowledge and skills will encourage young people to avoid or reduce behaviors that carry a risk of contracting HIV infection. HIV/AIDS education is important for ensuring that they

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are prepared for situations that will put them to risk as they grow older and also to reduce stigma and discrimination by dispelling false information that can lead to fear and blame.³

Studies on level of awareness on HIV/AIDS among youths have been done in other parts of the country,⁴⁻¹² but are scarce for the North-Eastern part of the country which is socio-topographically quite different from the mainland of the country. The present study was taken up in Manipur to assess the level of awareness on HIV/AIDS among school-going adolescents and also to understand their attitude towards HIV/AIDS.

MATERIALS AND METHODS: A cross-sectional study was taken up in August 2014 among all the 16 existing higher secondary (both government-owned and private-owned) in Imphal East and Imphal West districts of Manipur. Based on the HIV awareness level of 19.9% among higher secondary schools in Delhi⁴ with 95% confidence interval and an allowable error of 10%, a sample size of 1540 was calculated. Taking into account of 15-20% possible absenteeism, a final sample size of 1848 was made. This sample was distributed to all the higher secondary schools on the basis of probability proportionate to size.

The requisite numbers of the study respondents from each school were selected by drawing lots among the Class XI and XII students. A team of trained personnel from the Department of Community Medicine, JN Institute of Medical Sciences, Imphal collected data on background profile of respondents, their knowledge and attitude on HIV/AIDS using a pre-tested semi-structured questionnaire which carried scores ranging from zero to 31. Prior permission from heads of school authorities was obtained. Also the purpose of the study was explained beforehand and confidentiality was maintained. Absentee students on the day of visit by the study team and those who refused to participate in the study were excluded.

Data collected were sorted and checked for completeness, consistency and errors, and then were entered to SPSS v.21. Descriptive statistics (mean, percentages) and analytical statistics (t-test) were used for analysis.

RESULTS: There was no case of refusal. Completed data sets were collected from 1862 students which included 14 volunteer students whose background profiles were comparable to the selected students. The mean age of the respondents was 16.79 (SD±1.1) years. Females (1088, 58%) outnumbered male students (774, 42%). 1158 students (62%) were from Class XI, the remaining from Class XII. 803 (86%) students were from government schools. 1364 (73%) belonged to Science stream, 498 (27%) being from Arts and Commerce stream. (Table 1).

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Background profile of respondents	No. of respondents	Percentages
Sex		
• Male	774	41.6
• female	1088	58.4
Educational level		
• Class XI	1158	62.2
• Class XII	704	37.8
Type of school		
• Govt. owned	1606	86.3
• Pvt. owned	256	13.7
Subject stream		
• Science	1364	73.3
• Arts & commerce	498	26.7
Table 1: Background profile of students		

Out of the total study subjects, 1786 (95.9%) had heard about HIV/AIDS, the main sources of information being books (80%), teachers (63%), TV (62%), radio (58%), newspapers (50%), health personnel (43%), family members (40%) and friends (39%). But only 1226 (65.8%) could correctly say what HIV and AIDS were. 1278 (68.6%) knew that HIV/AIDS is a communicable disease. 1564 (84%) knew that the virus replicates inside the body. 1162 (62.5%) knew that HIV can potentially live in the human body for years before AIDS develops.

Awareness on routes of transmission and false Beliefs: Majority of the students (1776, 95.5%) were definite about the possibility of HIV transmission through blood transfusion. Only 90 (4.8%) students did not know that HIV is transmitted through body-fluids. 1578 (84.7%) knew the importance of sharing needles/syringes in the transmission. 1494 (80.2%) were aware of the route of transmission from infected mother to her child at birth or through breastfeeding. 1282 (68.9%) knew that HIV could be transmitted by an infected person even if he/she was asymptomatic.

61% (1140 students) knew that HIV could be contracted in the process of tattooing. Only 524 (28.1%) knew that deep kissing could transmit the virus. But the proportion got reduced 43% when talked of about the role of sharing razor in saloons. 418 (22.5%) thought that mosquitoes could spread the disease. 136 (7.3%) believed that HIV could spread through coughing and sneezing. Another 57 (6.1%) said that HIV could spread through sharing glass of water while another 26 (1.4%) believed that touching/shaking hands could spread HIV. (Table 2).

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Possible means of HIV transmission reported	No. of respondents	Percentages
Infected blood transfusion	1776	95.38
Body fluids/secretions	1772	95.17
Sharing needles/syringes	1578	84.75
Breastfeeding/Mother to child	1494	80.23
Tattooing	1140	61.22
Sharing razor in saloons	794	42.64
Deep kissing	524	28.14
Mosquito-bites	418	22.45
Through coughing/sneezing	136	7.30
Sharing glass of water	26	1.40
Touching/shaking hand	26	1.40

Table 2: Awareness and false beliefs on HIV transmission

Awareness on factors helpful for preventing HIV Transmission: 1460 (78.4%) believed that abstinence before marriage was the best way of preventing HIV/AIDS. Equal number of respondents believed that knowing one's HIV status could help in preventing HIV/AIDS. 1448 (77.8%) knew that use of condoms could effectively prevent HIV transmission through sexual route. But only 484 (26%) agreed that female condoms are effective barriers. 1042 (56%) knew that if the HIV status of the pregnant woman was known earlier, the transmission to the child could have been prevented. (Table 3).

Helpful factors for prevention	No. of respondents	Percentage
Screening blood before transfusion	1474	79.16
Abstinence before marriage	1460	78.41
Knowing one's HIV status	1460	78.41
Use of condoms (Nirodh)	1448	77.77
Use of sterilized needles	1324	71.11
Knowing HIV status of pregnant women	1042	55.96
Use of female condoms	484	25.99

Table 3: Awareness on factors helpful for HIV transmission

Attitude towards HIV/AIDS: Majority of the study subjects had positive attitudes towards HIV/AIDS viz. (i) To send children to regular schools (9149, 80%) (ii) To help accident victims even if HIV positive (1410, 76%) (iii) To continue employing HIV positive housemaids (1376, 74%) (iv) Feeling sympathetic with people living with HIV/AIDS (1196, 64%) and (v) Willingness to sit next to PLHA (1180, 63%).

Some of the common negative attitudes as reported by the study subjects were (i) PLHA being a threat to the society (708, 38%) (ii) PLHA deserving to suffer (554, 30%) (iii) Desiring to publicize names of PLHA (528, 28%) (iv) To divorce spouse if found HIV positive (340, 18%) (v)

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Discriminating PLHA from attending social function (162, 9%) and (vi) To infect others if self is tested HIV positive (86, 5%). (Table 4).

Attitudes	No. of respondents	Percentage
(A) Positive attitudes		
Send infected children to regular schools	1494	80.23
Helping HIV positive accident victim	1410	75.73
Continue employing HIV positive housemaid	1376	73.90
Feeling sympathetic with PLHA	1196	64.23
Willing to sit next to a HIV positive person	1180	63.37
(B) Negative attitudes		
PLHA being a threat to society	708	38.02
PLHA deserve suffering	554	29.75
To make names of PLHA public	528	28.36
Divorce infected spouse	340	18.26
Not allowing PLHA to attain social functions	162	8.70
To infect others if you are HIV positive	86	4.62

Table 4: Students' attitude towards HIV/AIDS

One-fifth of the respondents (406, 21.8%) had a misconception that HIV/AIDS could be completely cured.

Knowledge and attitude score and factors associated with It: The mean knowledge and attitude score of the study subjects was 21.85 with ± 3.8 (SD) out of a maximum of 31. The minimum score was seven whereas the maximum was 30. Female students were found to be having higher knowledge and correct attitude score when compared to the male counterparts. Again, students from government-owned schools were found to be having higher score than those of private-owned schools. Both of the above mentioned differences were statistically significant. There was no significant difference in the knowledge and attitude among the students because of the differences in the level of education and subject stream. (Table 5).

Factors	Characteristics	Mean score (SD)	P value
Sex	Male	21.24 (± 3.759)	0.00
	Female	22.29 (± 3.78)	
Educational level	Class XI	22 (± 3.6)	0.14
	Class XII	21.6 (± 4.0)	
Type of school	Government-owned	22.3 (± 3.57)	0.00
	Private- owned	19.01 (± 4.05)	
Subject stream	Science	21.9 (± 3.8)	0.57
	Arts & commerce	21.7 (± 3.8)	

Table 5: Association between mean knowledge and attitude score and background characteristics of study subjects

DISCUSSION: The main sources of information on HIV/AIDS for the students in the present study were books, teachers, TV and newspapers whereas the main sources of information as found out in

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an earlier study held in 2011 at Lucknow¹² were TV, newspapers and friends. This might be because of the fact that chapters on HIV/AIDS were recently added in the school curriculum. It reflects the role taken by the educational sector in spreading awareness on HIV/AIDS.

Two-thirds of the present study respondents could differentiate between HIV and AIDS. This is much higher than the proportion (less than 50%) reported by Anurag et al in 2011.⁸ This difference might be because of time difference between the two study periods and also because of sheer gravity of HIV/AIDS problem in Manipur compelling people to know about it.

The present study showed that 95% of the students were aware of the possibility of contracting HIV through transfusion of infected blood. This was much higher than the figure of 41% as reported by Singh R et al in their study at Meerut city in 2004⁵. This difference might be because of the same reason already mentioned above.

The proportion of 80% students being aware of mother to child through breastfeeding found out from the present study was slightly higher than the figure 76% reported by Gupta P et al in 2011.¹² The difference in time zone may be behind this.

The figures of 85% students being aware of HIV transmission through sharing of needles, 78% aware of HIV/AIDS being preventable and another 78% aware of the role of condoms in preventing HIV/AIDS transmission were found to be higher than reported by Lal P et al in their study at Delhi in 2005.⁴ Again the difference in time zone, the disease being a big problem in the State and efforts made by the concerned State authority to spread awareness might be the reason behind.

22% respondents having misconception that HIV/AIDS could be cured completely was comparable to the figure of 21% reported from Gujarat by Bhalla S in 2005.⁹

Female students having better knowledge and correct attitude on HIV/AIDS than the male students could be because of absence of gender discrimination in learning in the State. Girls are competing with boys in many avenues of life in Manipur. The difference in knowledge and attitude among students of government-owned and private-owned schools could not be explained.

Majority of the study subjects (63%-80%) had positive attitudes towards HIV/AIDS while one-third had some negative attitudes like PLHA being a threat to the society, PLHA deserved to suffer etc.

CONCLUSION: The knowledge and attitude on HIV/AIDS among higher secondary students in Imphal, Manipur is better than reported by other studies done elsewhere in the country. Nevertheless, there is scope for improving it. Concerned stakeholders in coordination with the educational sector should continue to give relentless effort so that each and every youth has full and clear knowledge on HIV/AIDS and has no stigma and discrimination on PLHA.

A State-wide study covering all the existing districts of the State is recommended so that the local specific scenarios can be captured and subsequently local specific needs can be implemented.

REFERENCES:

1. Prevalence of HIV/AIDS in India. Available at: http://www.en.wikipedia.org/wiki/HIV/AIDS_in_India. Accessed August 25, 2014.
2. HIV/AIDS positive cases in Manipur. Available at http://www.e_pao.net/GP.asp?src=24011213. Dec13. Accessed September 1, 2014.
3. HIV and AIDS education for young people. Available at: <http://www.avert.org/hiv-aids>

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Education-young-people.htm. Accessed September 6, 2014.

4. Lal P, Anita N, Bodhan S, Gopal K. A study of awareness about HIV/AIDS among secondary school children in Delhi, Indian J Community Med, 2008 July; 33(3):190-2.
5. Singh R, Garg SK, Singh JV, Bhatnagar B, Chopra H. An awareness study about AIDS and safe blood among higher secondary girl students. Indian J Community Med, July-Sept 2004; 29 (3): 114.
6. Gaur MP, Gaur M, A study of awareness and knowledge among undergraduate students about AIDS. Academic Sports Scholar 2013; 2 (12): 1-5.
7. Govindarajan K, Assessment of knowledge, attitude towards HIV/AIDS among secondary school students. Quarterly International Education E-journal, Jan, Feb, March 2014; 3 (1): 147-54.
8. Srivastava A, Mahmood SE, Mishra P, Shrotriya UP, Saifali I. Adolescence awareness; A better tool to combat HIV/AIDS. National Journal of Community Medicine 2012; 2(1):86-90.
9. Bhalla S, Chandwani H, Singh D, Somasundaram C, Rasanias SK, Singh s et al. Knowledge about HIV/AIDS among senior secondary school children in Jamnagar, Gujarat. Health and Population 2005; 28 (4): 178-88.
10. Rao S, Palani G, Iyer RH, Sathiyasekharan BWC. A cross-sectional study of HIV/AIDS awareness among college students. SRMC Journal, Jan-June 2011; 4 (1): 5-10.
11. Unnikrishnan B, Mithra, Rekha T, Roshni B. Awareness and attitude of the general public toward HIV/AIDS in costal Karnataka. Indian J Community Med, Jan 2010; 3 (10): 142-146
12. Gupta P, Anjun F, Bhardwaj F, Srivastav JP, Zaidi ZH. Knowledge about HIV/AIDS among senior secondary school students. N Am J Med Science, Feb 2013 (2): 119-23.

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